

WE CLAIM:

1. A method of mapping optical texture properties from at least one optical image to an acquired monochrome data set comprising:

- segmenting the acquired monochrome data set into a plurality of classifications representing a plurality of textures;
- segmenting the optical image into a plurality of color classifications representing a second plurality of textures;
- generating a texture model for the plurality of color classifications;
- matching the texture models to the plurality of classifications of the monochrome image data; and
- applying the texture models to the monochrome image data.

2. An imaging system for mapping optical texture properties from at least one optical image to an acquired monochrome data set comprising:

- an imaging scanner for acquiring the monochrome data set;
- a processor, said processor segmenting the acquired monochrome data set into a plurality of classifications representing a plurality of textures, segmenting the optical image into a plurality of color classifications representing a second plurality of textures, generating a texture model for the plurality of color classifications, matching the texture models to the plurality of classifications of the monochrome image data, and applying the texture models to the monochrome image data; and
- a display unit operatively coupled to the processor for displaying a representation of the image data with the texture models applied.

3. The imaging system for mapping optical texture properties according to claim 2, wherein the imaging scanner is a computed tomography scanner.
4. The imaging system for mapping optical texture properties according to claim 2, wherein the imaging scanner is a magnetic resonance imaging scanner.
5. The imaging system for mapping optical texture properties according to claim 2, wherein the image data with the texture models applied is a color representation of the object being imaged.

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